

Title (en)  
Driver circuit with FET and bipolar transistors

Title (de)  
Treiberschaltung mit FET und bipolaren Transistoren

Title (fr)  
Circuit d'attaque avec transistors FET et bipolaires

Publication  
**EP 0533354 B1 19990203 (EN)**

Application  
**EP 92307598 A 19920820**

Priority  
US 76172991 A 19910918

Abstract (en)  
[origin: EP0533354A1] A driver circuit provides a high output current at a fast slew rate to a low impedance load. The driver circuit (20) has an output circuit including a first bipolar transistor (23) having a collector emitter path between a voltage supply line (22) and a node (15) for connection to a load. The output circuit also includes a first FET (27) having its source-drain path connected between the voltage supply line (24) and the base of the first bipolar transistor (23), and its gate connected to an input node (28). An additional circuit supplies drive current to the base of the first bipolar transistor (23) only to assist the first bipolar transistor turn-on, so that the additional circuit does not add extra voltage drop across the first bipolar transistor (23) during turned on operation. In one embodiment, the first and second bipolar transistors (23-30) are NPN transistors, and the first and second FETs (27,32) are p-channel FET devices. <IMAGE>

IPC 1-7  
**H03K 17/56**; **H03K 17/04**; **H03K 17/615**

IPC 8 full level  
**H03K 17/04** (2006.01); **H03K 17/041** (2006.01); **H03K 17/567** (2006.01); **H03K 17/615** (2006.01)

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Citation (examination)

- JP S6439817 A 19890210 - TOSHIBA CORP
- EP 0212004 A2 19870304 - TOSHIBA KK [JP]
- EP 0099100 A1 19840125 - HITACHI LTD [JP]
- EP 0368742 A1 19900516 - BULL SA [FR]

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